23. (New) A computer readable recording medium storing a program for converting data dependent on a first illuminating light into data dependent on a second illuminating light, said program comprising the steps of:

storing conversion data for plural illuminating lights having different characteristics;

selecting two or more illuminating lights from the plural illuminating lights according to the second illuminating light;

generating data indicating a proportion of synthesis of conversion data for the selected plural illuminating lights, according to a manual instruction input by a user;

generating a conversion condition from the conversion data for the selected plural illuminating lights according to the data indicating the proportion of synthesis; and

converting data dependent on the first illuminating light into data dependent on the second illuminating light, based on the conversion condition.

C4 cont.

REMARKS

This application has been carefully reviewed in light of the Office Action dated September 11, 2001 (Paper No. 16). Claims 1 to 9 and 19 to 23 are in the application, with Claim 18 having been canceled without prejudice or disclaimer of the subject matter contained therein and Claims 19 to 23 having been newly added herein. Claims 1, 8, 9, 19, 22 and 23 are the independent claims. Reconsideration and further examination are respectfully requested.

Claims 1 to 9 and 18 were rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 5,710,876 (Peercy). Applicants have carefully considered the Examiner's

remarks and the applied reference and respectfully submit that the claims herein are patentably distinguishable over the applied art for at least the following reasons.

The present invention concerns the conversion of data dependent on a first illuminating light into data dependent on a second illuminating light. A conversion condition is generated from conversion data for selected illuminating lights, where the illuminating lights are selected according to the second illuminating light. Using color temperature information of the conversion condition and the second illuminating light, data dependent on the first illuminating light is converted into data dependent on the second illuminating light. In this manner, accurate conversion of the data is obtained. In particular, the conversion accommodates color temperature information.

With reference to particular claim language, independent Claims 1, 8 and 9 concern converting data dependent on a first illuminating light into data dependent on a second illuminating light. Conversion data is stored for plural illuminating lights having different characteristics. Two or more illuminating lights are selected from the plural illuminating lights according to the second illuminating light. Data indicating a proportion of synthesis of conversion data for the selected plural illuminating lights corresponding to the second illuminating light is generated. A conversion condition is generated from the conversion data for the selected plural illuminating lights according to the data indicating the proportion of synthesis. Data dependent on the first illuminating light is converted into data dependent on the second illuminating light using color temperature information of the conversion condition and the second illuminating light.

The applied art is not understood to disclose the foregoing features of the present invention. In particular, the applied art is not understood to disclose at least the feature of using color temperature information of a conversion condition and a second illuminating light to convert data dependent on a first illuminating light into data dependent on the second illuminating light.

Specifically, Peercy concerns a computer system for rendering images of an object that appear as seen by a sensor such as a camera. Peercy teaches that an image of the object is rendered taking into account sources of illumination on the object as well as reflectance properties of the object. However, Peercy is not understood to disclose rendering which uses color temperature information of a conversion condition and a second illuminating light. Rather, Peercy is understood to rely on spectral reflectance data of the object as well as spectral illumination source data, in combination with a response curve of a particular sensor.

The Office Action states, in connection with now-canceled Claim 18, that Peercy in column 10, lines 55 to 63, discloses executing correction corresponding to color temperature. However, Applicants understand this portion of Peercy merely to disclose the use of color-correlated temperature in combination with spectral curves for representing light sources. Applicants do not understand Peercy to disclose the use of this color-correlated temperature for the conversion of data dependent on an illuminating light. Therefore, Peercy is not understood to disclose at least the feature of using color temperature information of a conversion condition and a second illuminating light to

convert data dependent on a first illuminating light into data dependent on the second illuminating light.

Accordingly, independent Claims 1, 8 and 9 are believed to be patentable over the applied art. Reconsideration and withdrawal of the § 102(e) rejection of Claims 1, 8 and 9 are respectfully requested.

Newly added Claims 19, 22 and 23 concern converting data dependent on a first illuminating light into data dependent on a second illuminating light. Conversion data for plural illuminating lights having different characteristics is stored. Two or more illuminating lights from the plural illuminating lights are selected according to the second illuminating light. Data indicating a proportion of synthesis of conversion data for the selected plural illuminating lights is generated according to a manual instruction input by a user. A conversion condition is generated from the conversion data for the selected plural illuminating lights according to the data indicating the proportion of synthesis. Data dependent on the first illuminating light is converted into data dependent on the second illuminating light, based on the conversion condition.

The applied art is not understood to disclose or suggest the foregoing features of the invention. Specifically, Peercy is not understood to disclose or suggest the feature of generating data indicating a proportion of synthesis of conversion data for selected illuminating lights according to a manual instruction input by a user. In the Office Action, with respect to the rejection of a dependent claim, it states that Peercy teaches this feature of the invention in column 8, lines 55 to 57. Applicants respectfully disagree with this characterization of Peercy. As Applicants understand Peercy, the user input is utilized

to select particular light sources that illuminate an object to be rendered. Peercy is not understood, however, to use user input to generate data indicating a proportion of synthesis of conversion data for selected illuminating lights.

Accordingly, independent Claims 19, 22 and 23 are believed to be allowable over the applied art.

The other claims in the application are each dependent from the independent claims discussed above and are therefore believed to be patentable for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, individual consideration of each on its own merits is respectfully requested.

In view of the foregoing amendment and remarks, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Costa Mesa, California, office by telephone at (714) 540-8700. All correspondence should be directed to our address given below.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

1. (Three Times Amended) An image processing method for converting data dependent on a first illuminating light into data dependent on a second illuminating light, comprising the steps of:

storing conversion data for plural illuminating lights having different characteristics;

selecting two or more illuminating lights from [said] the plural illuminating lights according to [said] the second illuminating light;

generating data indicating a proportion of synthesis of conversion data [of said] for the selected plural illuminating lights, corresponding to [said] the second illuminating light;

generating a conversion condition from the [selected plural] conversion data for the selected plural illuminating lights according to the data indicating the proportion of synthesis; and

converting data dependent on [said] the first illuminating light into data dependent on [said] the second illuminating light[, based on the conversion condition] using color temperature information of the conversion condition and the second illuminating light.

2. (Amended) An image processing method according to claim 1, wherein [said] the plural illuminating lights are different in color rendering property.

3. (Amended) An image processing method according to claim 1, wherein [said] data indicating [the] proportions of plural syntheses are stored in advance according to [the] kinds of [the] illuminating light.

4. (Amended) An image processing method according to claim 3, wherein the kind of [said] the second illuminating light is designated by [the] a user and [said] the data indicating the proportion of synthesis are selected according to [said] the designated kind of the second illuminating light.

5. (Amended) An image processing method according to claim 1, wherein [said] the data indicating the proportion of synthesis are generated according to a manual instruction of [the] a user.

6. (Amended) An image processing method according to claim 1, wherein [said] the data indicating the proportion of synthesis are generated according to [the] an output from a sensor for measuring [the] illuminating light.

7. (Amended) An image processing method according to claim 1, wherein [said] the conversion data are matrix data.

8. (Three Times Amended) An image processing apparatus for converting data dependent on a first illuminating light into data dependent on a second illuminating light, comprising:

a data storing unit [storage means] for storing conversion data for plural illuminating lights having different characteristics;

a processor for selecting two or more illuminating lights from [said] the plural illuminating lights according to [said] the second illuminating light;

an instructing unit [generation means] for generating data indicating [the] a proportion of synthesis of conversion data [of said] for the selected plural illuminating lights, corresponding to [said] the second illuminating light;

a calculating unit [generating means] for generating a conversion condition from the [selected plural] conversion data for the plural selected illuminating lights according to the data indicating the proportion of synthesis; and

a converting unit [conversion means] for converting data dependent on [said] the first illuminating light into data dependent on [said] the second illuminating light[, based on said conversion condition] using color temperature information of the conversion condition and the second illuminating light.

9. (Three Times Amended) A computer readable recording medium storing a program for converting data dependent on a first illuminating light into data dependent on a second illuminating light, said program comprising the steps of:

storing conversion data for plural illuminating lights having different characteristics;

selecting two or more illuminating lights from [said] the plural illuminating lights according to [said] the second illuminating light;

generating data indicating [the] a proportion of synthesis of conversion data

[of said] for the selected plural illuminating lights, corresponding to [said] the second illuminating light;

generating a conversion condition from the [selected plural] conversion data for the selected plural illuminating lights according to the data indicating the proportion of synthesis; and

converting data dependent on [said] the first illuminating light into data dependent on [said] the second illuminating light[, based on said conversion condition] using color temperature information of the conversion condition and the second illuminating light.

18. (Canceled)